

PATENT  
Docket No: HJ02001USU2 (P01018USU2)

IN THE CLAIMS:

Please amend the claims as follows:

1. – 36. (Cancelled)

Please add the following new claims:

37. (New) A loudspeaker baffle isolation assembly comprising:

a loudspeaker baffle including a baffle portion defining a baffle opening, the baffle portion including a first surface and a second surface;

a bumper positioned in the baffle opening and contacting the baffle portion, the bumper including a first side and a second side;

a first resistant member generally disposed on the first side of the bumper and contacting the first surface of the baffle, the first resistant member having a first bore, where at least a portion of the bumper on the first side extends into the first bore and is coaxial with the first bore relative to a longitudinal axis, and the bumper is separate from and spaced from the first resistant member; and

a second resistant member generally disposed on the second side of the bumper and contacting the second surface of the baffle, the second resistant member having a second bore, where at least a portion of the bumper on the second side extends into the second bore and is coaxial with the second bore relative to the longitudinal axis, and the bumper is separate from and spaced from the second resistant member.

**PATENT**  
Docket No: HI02001USU2 (P01018USU2)

38. (New) The assembly of claim 37, further including a loudspeaker housing, where the first resistant member is interposed between the first surface of the baffle and the housing.

39. (New) The assembly of claim 38, further including a loudspeaker disposed in the loudspeaker housing.

40. (New) The assembly of claim 37, where the bumper has a bumper opening formed through the bumper from the first side to the second side, the first resistant member has a first resistant member opening, the second resistant member has a second resistant member opening, and the assembly further includes a shaft extending along the longitudinal axis from the first resistant member opening, through the bumper opening and into the second resistant member opening.

41. (New) The assembly of claim 40, further including a loudspeaker housing having a housing opening, where the first resistant member is interposed between the first surface of the baffle and the housing opening, and where the bumper opening, the first resistant member opening, the second resistant member opening, and the housing opening are aligned with each other relative to the longitudinal axis.

42. (New) The assembly of claim 41, where the shaft is hollow.

PATENT  
Docket No: HI02001USU2 (P01018USU2)

43. (New) The assembly of claim 40, where the shaft has an outer diameter, the bumper opening has an inner diameter, and the outer diameter is less than the inner diameter such that the shaft is slidable within the bumper opening along the longitudinal axis.

44. (New) The assembly of claim 40, further including a sleeve interposed in the bumper opening between the bumper and the shaft.

45. (New) The assembly of claim 44, where the shaft has an outer diameter, the sleeve has an inner diameter, and the outer diameter is less than the inner diameter such that the shaft is slidable within the sleeve along the longitudinal axis.

46. (New) The assembly of claim 40, further including a first cap extending from a first end of the shaft at a side of the first resistant member generally facing away from the first side of the bumper, and a second cap extending from an opposing second end of the shaft at a side of the second resistant member generally facing away from the second side of the bumper.

47. (New) The assembly of claim 46, further including a housing, where the first cap contacts the housing, and the first resistant member and the second resistant member are positioned in non-contacting relation to the housing.

48. (New) The assembly of claim 46, further including a housing, where the second cap contacts the housing, and the first resistant member and the second resistant member are positioned in non-contacting relation to the housing.

PATENT  
Docket No: HI02001USU2 (P01018USU2)

49. (New) The assembly of claim 46, further including a washer interposed between the first resistant member and the first cap.

50. (New) The assembly of claim 46, further including a washer interposed between the second resistant member and the second cap.

51. (New) The assembly of claim 46, where at least one of the first cap and the second cap is integrated with the shaft as a single-piece construction.

52. (New) The assembly of claim 46, where at least one of the first cap and the second cap is a separate component relative to the shaft and is coupled to the shaft.

53. (New) The assembly of claim 37, where the bumper has a groove circumferentially formed around the bumper relative to the longitudinal axis, and the baffle portion extends into the groove.

54. (New) The assembly of claim 37, where the first resistant member is constructed from a first elastomeric material, the second resistant member is constructed from a second elastomeric material, the bumper is constructed from a third elastomeric material, and at least one of the first, second and third elastomeric materials has a durometer measurement different from the durometer measurements of the other elastomeric materials.

PATENT  
Docket No: HI02001USU2 (P01018USU2)

55. (New) The assembly of claim 37, where the first resistant member is constructed from a first elastomeric material, the second resistant member is constructed from a second elastomeric material, the bumper is constructed from a third elastomeric material, and at least one of the first, second and third elastomeric materials has a durometer measurement ranging from about 20 to about 100.

56. (New) The assembly of claim 37, further including a housing having a housing opening and a mounting mechanism, where the bumper has a bumper opening extending through the bumper from the first side to the second side, the first resistant member has a first resistant member opening, the second resistant member has a second resistant member opening, the mounting mechanism extends along the longitudinal axis from the housing opening and through the first resistant member opening, the bumper opening, and the second resistant member opening, and each of the bumper, the first resistant member and the second resistant member is disposed in non-contacting relation to the housing.

57. (New) The assembly of claim 56, further including a cap contacting the first resistant member and the housing and interposed between the first resistant member and the housing, where the cap has a cap opening and the mounting mechanism extends through the cap opening.

58. (New) The assembly of claim 37, where the first resistant member includes a first sidewall defining the first bore, the second resistant member includes a second sidewall defining the second bore, and at least one of the first and second sidewalls has a thickness that varies along the longitudinal axis.

PATENT  
Docket No: HI02001USU2 (P01018USU2)

59. (New) The assembly of claim 37, where the first resistant member includes a first sidewall defining the first bore and terminating at a first lip, the first lip contacts the first surface of the baffle, the second resistant member includes a second sidewall defining the second bore and terminating at a second lip, the second lip contacts the second surface of the baffle, and at least one of the first and second sidewalls has a thickness that increases generally in a direction along the longitudinal axis from the corresponding lip away from the bumper.

60. (New) A loudspeaker baffle isolation assembly comprising:

a bumper including a first side, a second side, and an opening formed through the bumper from the first side to the second side;

a first resistant member generally disposed on the first side of the bumper and having a first bore, where at least a portion of the bumper on the first side extends into the first bore and is coaxial with the first bore relative to a longitudinal axis, and the bumper is separate from and spaced from the first resistant member;

a second resistant member generally disposed on the second side of the bumper and having a second bore, where at least a portion of the bumper on the second side extends into the second bore and is coaxial with the second bore relative to the longitudinal axis, and the bumper is separate from and spaced from the second resistant member; and

a shaft extending through the bumper opening and into the first bore and the second bore.

61. (New) The assembly of claim 60, further including a loudspeaker baffle, the baffle including a first surface, a second surface, and a baffle portion defining a baffle opening, where

PATENT  
Docket No: H102001USU2 (P01018USU2)

the bumper is positioned in the baffle opening and contacts the baffle portion, the first resistant member contacts the first surface, and the second resistant member contacts the second surface.

62. (New) The assembly of claim 60, further including a first cap extending from a first end of the shaft at a side of the first resistant member generally facing away from the first side of the bumper, and a second cap extending from an opposing second end of the shaft at a side of the second resistant member generally facing away from the second side of the bumper.

63. (New) A loudspeaker baffle isolation assembly comprising:

a loudspeaker baffle including a baffle portion defining a baffle opening; and

a bumper portion positioned in the baffle opening and contacting the baffle portion, the bumper portion including a first side, a second side, and a bumper opening formed through the bumper along a longitudinal axis from the first side to the second side;

a first resistant portion extending from the first side and contacting a first surface of the baffle, the first resistant portion including a first lip disposed at a distance from the bumper opening and a first sidewall defining a first cavity between the bumper opening and the first lip, the first cavity communicating with the bumper opening; and

a second resistant portion extending from the second side and contacting a second surface of the baffle, the second resistant portion including a second lip disposed at a distance from the bumper opening and a second sidewall defining a second cavity between the bumper opening and the second lip, the second cavity communicating with the bumper opening.

**PATENT**  
Docket No: H102001USU2 (P01018USU2)

64. (New) The assembly of claim 63, further including a loudspeaker housing, where the first resistant portion is interposed between the first surface of the baffle and the housing.

65. (New) The assembly of claim 64, further including a loudspeaker disposed in the loudspeaker housing.

66. (New) The assembly of claim 63, where the bumper portion, the first resistant portion, and the second resistant portion are integrated as a unitary isolation member.

67. (New) The assembly of claim 66, where the unitary isolation member is constructed from an elastomeric material having a durometer measurement ranging from about 20 to about 100.

68. (New) The assembly of claim 63, further including a shaft extending along the longitudinal axis from the first cavity, through the bumper opening and into the second cavity.

69. (New) The assembly of claim 68, further including a loudspeaker housing having a housing opening, where the first resistant portion is interposed between the first surface of the baffle and the housing opening, and where the bumper opening and the housing opening are aligned with each other relative to the longitudinal axis.

70. (New) The assembly of claim 69, where the shaft is hollow.

**PATENT**  
Docket No: HI02001USU2 (P01018USU2)

71. (New) The assembly of claim 68, where the shaft has an outer diameter, the bumper opening has an inner diameter, and the outer diameter is less than the inner diameter such that the shaft is slidable within the bumper opening along the longitudinal axis.

72. (New) The assembly of claim 68, further including a first cap extending from a first end of the shaft at a side of the first resistant portion generally facing away from the first side of the bumper portion, and a second cap extending from an opposing second end of the shaft at a side of the second resistant portion generally facing away from the second side of the bumper portion.

73. (New) The assembly of claim 72, further including a housing, where the first cap contacts the housing, and the first resistant portion and the second resistant portion are positioned in non-contacting relation to the housing.

74. (New) The assembly of claim 72, further including a housing, where the second cap contacts the housing, and the first resistant portion and the second resistant portion are positioned in non-contacting relation to the housing.

75. (New) The assembly of claim 72, where at least one of the first cap and the second cap is integrated with the shaft as a single-piece construction.

76. (New) The assembly of claim 72, where at least one of the first cap and the second cap is a separate component relative to the shaft and is coupled to the shaft.

PATENT  
Docket No: HI02001USU2 (P01018USU2)

77. (New) The assembly of claim 63, further including a housing having a housing opening and a mounting mechanism, where the mounting mechanism extends along the longitudinal axis from the housing opening and through the first cavity, the bumper opening, and the second cavity, and each of the bumper, the first resistant portion and the second resistant portion is disposed in non-contacting relation to the housing.

78. (New) The assembly of claim 77, further including a cap contacting the first resistant portion and the housing and interposed between the first resistant portion and the housing, where the cap has a cap opening and the mounting mechanism extends through the cap opening.

79. (New) The assembly of claim 63, where at least one of the first and second sidewalls has a thickness that varies along the longitudinal axis.

80. (New) The assembly of claim 63, where at least one of the first and second sidewalls has a thickness that increases generally in a direction along the longitudinal axis from the corresponding lip toward the bumper portion.

81. (New) A loudspeaker baffle isolation assembly comprising:  
a bumper portion including a first side, a second side, and a bumper opening formed through the bumper along a longitudinal axis from the first side to the second side;  
a first resistant portion extending from the first side, the first resistant portion including a first lip disposed at a distance from the bumper opening and a first sidewall defining a first cavity

PATENT  
Docket No: H102001USU2 (P01018USU2)

between the bumper opening and the first lip, the first cavity communicating with the bumper opening;

a second resistant member extending from the second side, the second resistant portion including a second lip disposed at a distance from the bumper opening and a second sidewall defining a second cavity between the bumper opening and the second lip, the second cavity communicating with the bumper opening; and

a shaft extending through the bumper opening and into the first cavity and the second cavity.

82. (New) The assembly of claim 81, further including a loudspeaker baffle, the baffle including a first surface, a second surface, and a baffle portion defining a baffle opening, where the bumper is positioned in the baffle opening and contacts the baffle portion, the first resistant member contacts the first surface, and the second resistant member contacts the second surface.

83. (New) The assembly of claim 81, further including a first cap extending from a first end of the shaft at a side of the first resistant portion generally facing away from the first side of the bumper portion, and a second cap extending from an opposing second end of the shaft at a side of the second resistant portion generally facing away from the second side of the bumper portion.

84. (New) A loudspeaker mounting system comprising:

a housing;

a loudspeaker disposed in the housing;

PATENT  
Docket No: HI02001USU2 (P01018USU2)

a baffle including a baffle portion defining a baffle opening, the baffle disposed in non-contacting relation to the housing; and

a baffle isolation assembly including:

    a bumper positioned in the baffle opening and contacting the baffle portion;

    a first resistant member generally disposed on a first side of the bumper and contacting a first surface of the baffle; and

    a second resistant member generally disposed on a second side of the bumper and contacting a surface of the baffle.

85. (New) The system of claim 84, where the first resistant member has a first bore, at least a portion of the bumper on the first side extends into the first bore and is coaxial with the first bore relative to a longitudinal axis, the second resistant member has a second bore, at least a portion of the bumper on the second side extends into the second bore and is coaxial with the second bore relative to the longitudinal axis, and the bumper is separate from and spaced from the first resistant member and the second resistant member.

86. (New) The system of claim 84, where the bumper has a bumper opening extending through the bumper from the first side to the second side, the first resistant member has a first resistant member opening, the second resistant member has a second resistant member opening, and the assembly further includes a shaft extending along a longitudinal axis from the first resistant member opening, through the bumper opening and into the second resistant member opening.

**PATENT**  
Docket No: HI02001USU2 (P01018USU2)

87. (New) The system of claim 86, further including a cap coupled to the shaft at a side of the first resistant member generally facing away from the first side of the bumper, where the cap contacts the housing and the first resistant member and the second resistant member are positioned in non-contacting relation to the housing.

88. (New) The system of claim 84, where the first resistant member is interposed between the first surface of the baffle and the housing.

89. (New) The system of claim 84, where the first resistant member is constructed from a first elastomeric material, the second resistant member is constructed from a second elastomeric material, the bumper is constructed from a third elastomeric material, and at least one of the first, second and third elastomeric materials has a durometer measurement different from the durometer measurements of the other elastomeric materials.

90. (New) The system of claim 84, where the first resistant member includes a first sidewall defining the first bore, the second resistant member includes a second sidewall defining the second bore, and at least one of the first and second sidewalls has a thickness that varies along the longitudinal axis.

91. (New) The system of claim 84, where the bumper has a bumper opening extending along a longitudinal axis from the first side to the second side, the first resistant member includes a first lip disposed at a distance from the bumper opening and a first sidewall defining a first cavity between the bumper opening and the first lip, the second resistant member includes a second lip

PATENT  
Docket No: H102001USU2 (P01018USU2)

disposed at a distance from the bumper opening and a second sidewall defining a second cavity between the bumper opening and the second lip, and the first cavity and the second cavity communicate with the bumper opening.

92. (New) The system of claim 84, where the bumper, the first resistant member, and the second resistant member are integrally provided as a unitary isolation member.

93. (New) The system of claim 84, where the baffle isolation assembly is one of a plurality of baffle isolation assemblies, each assembly including a respective bumper, a first resistant member and a second resistant member, and where the damping characteristic of at least one of the assemblies is different from the respective damping characteristics of the other assemblies.

94. (New). A method for isolating a baffle from a housing in which a loudspeaker is disposed, comprising:

isolating the baffle from the housing against loads in a radial direction by mounting a bumper in a baffle opening of the baffle, where the bumper contacts the baffle and is restricted from moving freely in the radial direction and the bumper does not contact the housing; and

isolating the baffle from the housing against loads in a longitudinal direction orthogonal to the radial direction by interposing a first resistant member between a first side of the baffle and the housing where the first resistant member contacts the baffle, providing a second resistant member in contact with an opposing second side of the baffle, and mounting the first resistant member and the second resistant member relative to the baffle such that the first resistant

PATENT  
Docket No: HI02001USU2 (P01018USU2)

member and the second resistant member are restricted from moving freely in the longitudinal direction.

95. (New) The method of claim 94, where at least one of the first and second resistant members includes a sidewall defining a bore, and the method further comprises varying the thickness of the sidewall.

96. (New) The method of claim 94, further comprising selecting durometer measurements for the bumper, the first resistant member, and the second resistant member based on the loads applied to the bumper, the first resistant member, and the second resistant member.